U. S. Department of Agriculture
Forest Service
Southeastern Area
State & Private Forestry

FOREST PEST MANAGEMENT

Report No. 82-3-34

Issued: 7/28/82

AERIAL DETECTION SURVEY OF FOREST INSECT AND DISEASE ACTIVITY, NORTHERN VIRGINIA

LAND OWNERSHIP OR SURVEY AREA: Northern Virginia

COUNTIES: Arlington, Clarke, Culpepper, Fairfax, Fauquier, Green, Loudoun, Madison, Orange, Page, Prince William, Rappahannock, Shenandoah, Stafford, Warren

STATE: Virginia

AREA WITHIN SURVEY AREA: 3, 165,700 acres

DATE: 7/13-7/14, 1982

PERCENT COVERAGE: 25%

AIRCRAFT: Cessna 182

CREW: Charles W. Dull, FPM; Cal Morris, Virginia Division of Forestry; Raj Waghray, Cooperative Extension Service; Ralph Donnel, Fairfax County Arborist; Bob Baily, Virginia Department of Agriculture

OBJECTIVES

To detect the presence of forest insect and disease activity along the heavily forested mountains of Northern Virginia as well as in the forested communities of Fairfax and Loudoun Counties. The survey was timed to coincide with gypsy moth, Porthetria dispar (L.), defoliation, if present within the survey area. Additional emphasis was placed on delineating areas of oak mortality on the Prince William Forest Park and Quantico Marine Corps Base.

SURVEY RESULTS

Defoliation was observed in several areas within the survey area. Of major concern was an area lightly defoliated around the Great Falls Area on the Potomac River on both the Virginia as well as the Maryland side of the Falls. A subsequent ground check by the Virginia Division of Forestry found that this defoliation was caused by native forest defoliators although no insects were found. The causal agent is suspected to be the linden looper, Erannis tilieria (Harris), and fall cankerworm Alsophila pometaria (Harris). State personnel did find gypsy moth larvae feeding in the area but do not feel that the widespread defoliation was caused by the gypsy moth at this time. Additionally, widespread defoliation was found on the areas north of Front Royal as well as through the Quantico and Prince William Forest Park Area. Large areas of oak mortality were also observed on the Prince William Forest Park and were mapped and ground checked by the Virginia Division of Forestry personnel.

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CONCLUSIONS

Although defoliation by the gypsy moth has still not been detected from aerial surveys, the entire Northern Virginia area is considered to be generally infested. Fairfax County Extension personnel have identified 302 locations with either larvae, pupa or adult female moths. The areas where spray operations have been conducted were observed from the air. No defoliation in those areas could be detected. In general, activity by native forest defoliators in Northern Virginia has decreased dramatically since last year. The area of oak mortality in the Prince William Forest Park is suspected to be caused by a very severe drought in 1981 with a continuing defoliator complex acting as an additional agent to cause stress on the hardwoods of that area. State and local personnel plan to continue their field surveillance activities for gypsy moth as well as other forest pests.

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